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PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Dobbs *et al.*)
Serial No.: 09/153,644) Group Art Unit: 1615
Filed: September 15, 1998) Examiner: Joynes, Robert M.
For: "IMPROVED HAIR SPRAY AND)
CONSUMER SPRAYS WITH REDUCED)
VOLATILE ORGANIC COMPOUNDS")

DECLARATION OF SUZANNE DOBBS PURSUANT 37 C.F.R. § 1.132

Assistant Commissioner for Patents
Washington, D.C. 20231

NEEDLE & ROSENBERG, P.C.
Suite 1200, The Candler Building
127 Peachtree Street, N.E.
Atlanta, Georgia 30303-1811

Sir:

I, Suzanne Dobbs, declare as follows:

1. I am an inventor of the subject matter of the above-identified patent application.
2. I am a Technical Service Technologist with Eastman Chemical Company. I have served in this capacity since 1994.
3. I have worked at Eastman Chemical Company for a total of 17 years, six years in R&D Polymers Division, three years in New Applications Development, and eight years in Technical Service Formulated Products. I have an A.S. degree in Chemistry.
4. While developing the subject matter of the above-identified patent application, the inventors of the application discovered that the odor associated with methyl

acetate is substantially reduced when combined with ethyl or isopropyl alcohol and subsequently sprayed.

5. The following comparisons were performed under my direction and supervision.
6. Several compositions were prepared using various solvents in combination with methyl acetate as shown below.

Sample	1a	2a	3a	4a	5a
Solvent					
Methyl Acetate	45%	45%	45%	45%	100%
Ethyl Alcohol	55%	-	-	-	-
Acetone	-	55%	-	-	-
Methyl Ethyl Ketone (MEK)	-	-	55%	-	-
Ethyl Acetate	-	-	-	55%	-

Sample	1b	2b	3b	4b	5b
Solvent					
Methyl Acetate	45%	45%	45%	45%	100%
Isopropyl Alcohol	55%	-	-	-	-
Acetone	-	55%	-	-	-
Methyl Ethyl Ketone (MEK)	-	-	55%	-	-
Ethyl Acetate	-	-	-	55%	-

7. The following observations were made for the comparative samples.

Sample	Observations	
	Odor from Spray-Out	Effect on Acetate Fabric
1a (MeOAc/Ethyl Alcohol)	Mildest; masks MeOAc without strong undesirable odor	Unaffected (no visible change)
2a (MeOAc/Acetone)	Stronger; more acetone-like	Fabric curled, became brittle, tears easily
3a (MeOAc/MEK)	Medium; more complex	Fabric curled, became brittle, tears easily
4a (MeOAc/Ethyl Acetate)	Stronger; more ethyl acetate-like	Fabric curled, became brittle, tears easily
5a (MeOAc)	Strong; undesirable	Fused yarns together, making the fabric stiff and easy to tear

Sample	Odor from Spray-Out	Observations
1b (MeOAc/Isopropanol)	Mild; reduces methyl acetate odor	Effect on Acetate Fabric Unaffected (no visible change)
2b (MeOAc/Acetone)	Stronger; more acetone-like	Fabric curled, became brittle, tears easily
3b (MeOAc/MEK)	Medium; more complex	Fabric curled, became brittle, tears easily
4b (MeOAc/Ethyl Acetate)	Stronger; more ethyl acetate-like	Fabric curled, became brittle, tears easily
5b (MeOAc)	Strong; undesirable	Fused yarns together, making the fabric stiff and easy to tear

8. As shown in the comparisons, the odors of the samples containing methyl acetate and ethyl or isopropyl alcohol were significantly improved relative to those samples containing only methyl acetate or methyl acetate with a solvent other than ethyl or isopropyl alcohol.
9. I believe that a strong, unpleasant odor, hinders consumer acceptance of a consumer hair care product.
10. Since methyl acetate has a characteristic, unpleasant odor, the above results of a substantially reduced, or masked, odor when sprayed from a liquid containing methyl acetate and alcohol were surprising.
11. I believe this surprisingly improved odor would be met with greater consumer acceptance when provided in a consumer product.
12. Further, the effects on acetate fabric of the samples containing methyl acetate and ethyl or isopropyl alcohol were significantly improved relative to those samples containing only methyl acetate or methyl acetate with a solvent other than ethyl or isopropyl alcohol.
13. The significantly improved effects when the methyl acetate and ethyl or isopropyl alcohol samples were placed in contact with acetate fabric were surprising as, individually, and in all combinations other than the methyl acetate and ethyl or isopropyl alcohol combinations, there are significant detrimental effects to the fabric.

14. It is undesirable to consumers to apply a consumer product that may damage clothing or other fabric that the product may come into contact with. Therefore, this surprisingly improved effect when the combination comes into contact with acetate fabric would be very desirable to consumers.
15. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful, false statements, perjury, and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that any such willful, false statement or perjury may jeopardize the validity of the application or any patent issued thereon.

Suzanne Dobbs

Suzanne Dobbs

7/01/02

Date